

REMARKS

The courtesies extended to the undersigned by Examiner Sean P. Shechtman, at the interview held January 8, 2008, are acknowledged and appreciated. During the interview, a proposed amended claim 99 was presented to the Examiner and was discussed. As indicated on the Interview Summary, the proposed new claim 99 was noted by the Examiner as requiring further search and consideration. Accordingly, a Request for Continued Examination (RCE) is being filed concurrently with the filing of this Second Amendment. For the reasons discussed during the interview, and as will be set forth hereinafter, it is believed that the claims now pending in the subject patent application are patentable over the prior art cited and relied on, taken either singly or in combination. Reexamination and reconsideration of the application, and allowance of the claims is respectfully requested.

In the Final Office Action, claims 99-116 were rejected under 35 USC 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, claim 99 was asserted as providing for the use of the roll transport system but since the claim assertedly did not set forth any steps involved in the method/process, it was asserted that it was unclear what the method/process was intended to encompass.

In response, claim 99 has been amended to recite the provision of a paper roll transport system as part of the roll storage system, generally at 02. Claim 99 has further been amended to positively recite that the paper roll transport system is used for supplying the paper rolls, which have been prepared in the paper roll storage facility, in accordance with a supply strategy that has been developed in the planning level, to the web-fed rotary printing press. Thus, claim 99, as currently presented recites both the provision of the roll storage system and also the use. As indicated by the Examiner during the interview, and on the Interview Summary, the rejection of claim 99-116 under 35 USC 112, second paragraph is withdrawn in response to the amending of claim 99.

Claims 99-116 were also rejected under 35 USC 101 because the claimed invention was asserted as being directed to non-statutory subject matter. It was asserted by the Examiner that a claimed recitation of a use, without setting forth any steps involved in the process, resulted in an improper definition of the process. As was also discussed with the Examiner, the language of currently amended claims 99-116 is believed to comply with 35 USC 101. That rejection is thus also respectfully traversed.

In the Final Office Action, claims 99-107, 113, 114 and 116 were rejected under 35 USC 102(b) as being anticipated by U.S. patent No. 4,803,634 to Ohno et al. Claims 108-112 were rejected under 35 USC 103(a) as being unpatentable over Ohno in view of U.S. patent No. 6,591,153 to Crampton and further in view of U.S. patent No. 5,441,214 to Kushihashi. Claim 115 was rejected under 35 USC 103(a) as being unpatentable over Ohno and further in view of U.S. patent No. 6,950,722 to Mountz. In response, various ones of the claims pending in the application have been amended. As discussed with Examiner Shechtman, and as will now be discussed in detail, it is believed that the claimed invention is not anticipated by, nor obvious over the prior art cited and relied on, taken singly and in combination.

As described in detail in the Substitute Specification, as depicted in the drawings, and as recited in the claims and specifically in currently amended independent claim 99, the subject invention is directed to a method for supplying paper rolls to a web-fed rotary printing press. As can be seen by referring to the discussion presented at paragraphs 035 and 036 of the Substitute Specification, in a high-performance printing press, there may typically be used apparently 60 rolls of paper per hour during a production period of the press. These rolls of paper typically are not all the same, and often are quite different from each other if, for example, the rotary web-fed printing press is printing a Sunday edition or another edition with inserts and the like.

A paper roll supply system, generally at 02, as seen in Fig. 1, is comprised of a number of subsystems including a paper roll storage facility 21;22 and 26;27, and a paper roll transport

system 19, as seen in more detail in Fig. 2. These subsystems receive paper rolls from supply sources, prepare the paper rolls, move the prepared rolls to a daily storage facility and transport the prepared rolls to the roll changers 06 of the printing units 04, again as seen in Fig. 1

A material flow system, generally at 05, as seen in Fig. 1, is provided for the web-fed rotary printing press. This material flow system, generally at 05, includes a coordination level 39 and a planning level 38, both as depicted in Figs. 3 and 4. These two levels can be included as separate levels in a computer, identified at 17 in Fig. 1, or can be separate computers. They work in cooperation with each other but perform different functions.

Stock data, regarding available paper rolls, is received from the paper roll storage facility in the coordination level. That information is, in turn, provided to the planning level.

As recited in claim 99, as currently pending, the planning level also receives production-relevant planning data regarding pending and planned production of the printing press from a product planning system 03. That system is described in detail at paragraph 058 of the Substitute Specification. As is recited there, the planning data is needed for the planning of the material flow for pending production, for possibly running production and for planned production.

The planning level also receives actual production data from a press management system. This is depicted at 11 in Fig. 4. Note the discussion at paragraph 066 regarding the information provided by the press management system. Also note the chart which is set forth at page 36 of the Substitute Specification.

The planning level utilizes the actual production data supplied by the press management system, the actual data from the paper roll storage facility and the planning data from the product planning system to develop a supply strategy. As recited in currently amended claim 99, that supply strategy takes into account the current production of the press, the pending and planned production of the press and the materials; i.e. the paper rolls which are stored in the roll supply system. Once an appropriate supply strategy has been developed in the planning level of the material flow system, it can be delivered to the conduction level of the material flow system.

The coordination level, as its name implies, coordinates the components of the press to implement the supply strategy developed in the planning level. The coordination level controls the operations of the various subsystems of the roll supply system 02 so that the right paper rolls will be delivered from the roll storage facility, when they have been prepared and stored, to the web-fed rotary printing press by using the paper roll transport system.

As discussed during the interview of January 8, 2008, the Ohno reference, although it is directed to a system which is also used to supply rolls of paper to a printing press, does not have the same capabilities as are provided by the method for supplying rolls, as recited in currently amended claim 99. In the Ohno patent, as described generally at Columns 3 and 4, there is provided a production control system, generally at 1; a press control subsystem 2 and a newsprint roll warehouse control subsystem as indicated at 6. There are other subsystems depicted in Fig. 1 and described generally at column 3 and 4 but those are not relevant to the subject invention.

Figs. 28 and 29A and 29B are relied on by the Examiner in his assertion that the Ohno reference anticipates claim 99 of the subject invention. As discussed during the interview, it is believed that there are several important differences between the Ohno device, and the subject invention, as recited in currently amended claim 99.

Initially, it is noted that the Office Action asserts, at page 3 thereof, that Ohno provides a material flow system including a planning level and a coordination level, as provided by the combination of elements 3100 and 3101. It is to be noted that elements 3100 and 3101 of Ohno are both indicated as being parts of the newsprint roll warehouse control subsystem for controlling the transfer of newsprint rolls from the warehouse to the roll storage. In contrast, as recited in currently amended claim 99, the material flow system of the subject invention includes a coordination level and a planning level. These are not parts of the paper roll supply system of the subject invention; i.e. they are not part of the roll supply system 02 of the subject invention.

The various elements that communicate to the feeding control CPU 3100 of Ohno are all parts of the roll supply system 02 of the subject invention. The feeding control CPU 3100 of Ohno communicates with the host CPU 3104 and with the newspaper roll storage control CPU 3101. As discussed at Column 26, starting at line 48 of the Ohno patent, the host processor 3104 is only able to transmit information necessary for printing on the current day. The separate newspaper roll feeding control processor 3100 of Ohno determines the quality and size of the newspaper rolls that are required for the current day's production. It then transmits that information to each feeding unit control device 3105.

In the subject invention, as noted in currently amended claim 99, the coordination level and the planning level are parts of a separate material flow system. They are not components of a newspaper roll storage sub-system, as set forth in the Ohno reference. The planning level of the subject invention, as recited in currently amended claim 99, receives at least three different types of information; stock data regarding paper rolls available; actual production data for the press and planning data from a product planning system. The planning level itself then determines a supply strategy which it transmits to the coordination level. The coordination level, in turn, once it is in receipt of the supply strategy, can then operate the various subsystems of the roll supply system 02 to supply the paper rolls to the appropriate roll changers of the printing units.

As discussed in the Substitute Specification, primarily at paragraphs 038 and 039, the material flow system 05 is of a higher level than are the subsystems of the roll supply system 02. Further, the product planning system is of a higher level than, for example, the coordination level. As recited at paragraph 041, the planning level can start its work; i.e. the developing of a supply strategy, before the coordination level or the subsystems of an execution level 41, which coordinates the subsystems of the roll supply system 02, are ready to operate or are still handling other orders. Thus, the planning level 38 of the subject invention, as recited in currently amended claim 99, performs functions in a method which is not taught or disclosed or

suggested by the Ohno reference. Accordingly, currently amended claim 99 is believed to be patentable over the prior art.

One benefit of the present invention, as recited in currently amended claim 99 is that the planning level is divided from the coordination level. This improves the division of tasks and also allows the system to be upgraded or downgraded by adding or removing components at the handling and storage levels while retaining the intelligence of the planning level and the coordination level. In Ohno there is a different approach. The tasks are not divided into different levels of intelligence but instead are divided among different facilities. The feeding control 3100 controls the entire newsprint feeding operation while the storage control 3101 controls both delivery of the rolls from the supplier as well as the preparation of the rolls. The method for supplying paper rolls to a web-fed rotary printing press, as recited in currently amended claim 99 is thus believed to be patentable over the disclosure of the Ohno reference.

All of the other claims now pending in the subject application depend from believed allowable, independent claim 99 and are thus also believed to be allowable. The secondary reference to Crampton, U.S. patent No. 6,591,153 is directed to a scheduling system for a manufacturing process involving the production of cigarettes. It does not seem particularly likely that one of skill in the art of printing presses and paper roll handling systems would be inclined to review a basically non-analogous art; cigarette making, to provide teachings that could be applied to paper web storage, preparation and handling. At best, Crampton discloses a very different control architecture from the one described in Ohno. It does not appear likely that the Crampton teaching of a cigarette making process could be applied to a newspaper printing process.

The tertiary reference to Kushihashi is directed to a paper web receiver apparatus. However it is simply a box that stores a paper web. It is also directed to a cigarette production device and again would not be apt to be considered by a printing press operator or inventor. Any roll changer that might be disclosed in Kushihashi would be directed to a roll of cigarette

paper. Such a roll is not at all comparable to the large number of rolls of paper which are typically run through in a typical production use of a web-fed rotary printing press of the type described and depicted in the subject U.S. patent application.

The secondary patent to Mountz, which was asserted as being combinable with the Ohno reference, in the rejection of claim 115, is also directed to dissimilar technology. In the Mountz device, there is shown an inventory system having a plurality of inventory trays. These trays are controlled to navigate within a factory. It again is highly unlikely that a person concerned with developing a method for supplying paper rolls to printing units in a rotary web-fed printing press would be apt to look at a patent directed to rolling inventory trays mounted on caster wheels. It is thus believed that the dependent claims which are currently pending in the subject U.S. patent application are also allowable over the prior art cited and relied on, taken either singly or in combination.

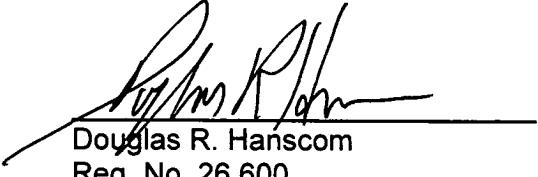
SUMMARY

A Request for Continued Examination is being filed herewith. Independent claim 99, and various ones of the dependent claims have been amended. It is believed that the claims which are now pending in the subject U.S. patent application are patentable over the prior art cited and relied on, taken either singly or in combination. Allowance of the claims, and passage of the application to issue is respectfully requested.

Respectfully submitted,

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